

REMARKS

The Official Action dated July 30, 2002 has been carefully considered. Accordingly, the changes presented herewith, taken with the following remarks, are believed sufficient to place the present application in condition for allowance. Reconsideration is respectfully requested.

By the present Amendment, claims 21 and 24 are amended to include a limitation from claim 22, and claim 24 is amended to stand in independent form. A Version With Markings Showing Changes Made is attached. It is believed that these changes do not involve any introduction of new matter, whereby entry is believed to be in order and is respectfully requested.

Claims 21-23, 26, 27 and 33 were rejected under 35 U.S.C. §102(b) as being anticipated by the Watanabe et al U.S. Patent No. 3,663,974. The Examiner asserted that Watanabe et al teach fabrics treated with an aldehyde and a silicone softener, and passed through a chamber containing hydrogen chloride gas.

However, Applicant submits that the methods for treating a textile as defined by claims 21, 23, 26, 27 and 33 are not anticipated by and are patentably distinguishable from Watanabe et al. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

More particularly, as defined by claim 21, the invention is directed to methods for treating a textile comprising fibers selected from the group consisting of cellulosic fibers, protein fibers and mixtures thereof. The methods comprise the steps of (a) contacting the textile with a liquid composition comprising formalin in an amount sufficient to provide from 0.56% to 7.4%, on weight of fabric, formaldehyde, and (b) heat curing the textile. The formalin comprises formaldehyde and water, the textile is provided with a silicone elastomer, and the treated textile is unresinated.

Watanabe et al disclose a process of treating cellulosic fiber-containing fabric. The process comprises impregnating the fabric with an aqueous liquid in an amount of 1-25%, by weight, based on fabric weight, drying the fabric to a moisture content of 3-20%, by weight, and contacting the dried fabric with a gaseous acidic catalyst. The aqueous liquid contains as the sole active fiber treating agent a compound selected from the group consisting of formaldehyde and formaldehyde-liberating compounds. Watanabe et al teach the solution comprising the formaldehyde and formaldehyde-liberating compounds may further comprise small amounts of softeners, including silicone-type softeners such as those available under the trade name "Noran Silicone Softener" (column 2, lines 50-53). The Examiner apparently asserts that the softener of Watanabe et al is an elastomer. Applicant submits however that the softener of Watanabe et al is not a silicone elastomer as employed in the present invention.

More particularly, Watanabe et al is a continuation of Application Serial No. 238,294, filed November 16, 1962, and issued on May 23, 1972. According to the article by J. V. Isharani, published in *Book of Papers*, 1982 National Technical Conference AATCC (American Association of Textile Chemists and Colorants), a copy of which was included with Applicant's previously filed Information Disclosure Statement, alkylpolysiloxanes have been used in textile dyeing and finishing operations for more than 20 years as of the date of the article (1982). Isharani further discloses that application of silicone polymers such as high molecular weight silanol endblocked dimethylpolysiloxane emulsion polymer with the monomeric cross-linker methyltrimethoxy silane as a textile finish was first made known in 1972 (page 144, right column), i.e., well after the 1962 original filing date of Watanabe et al. Isharani further teaches that such silicone polymer technology became unacceptable because of the failure to run consistently under mill conditions without forming silicone spots and because of the relatively high formulation costs with no benefits other than better durable

press rating and soft handle (page 144, right column). Isharani also teaches that second generation silicone elastomer products designed to overcome the problems of the earlier silicone polymers were introduced by Ciba-Geigy in 1979-1980 (page 145, left column).

Although the Examiner appears to assert that Noran Silicone Softener is a silicone elastomer, Applicant finds no teaching or suggestion in Watanabe et al that the silicone softener of Watanabe et al is a silicone elastomer. Further, as Watanabe et al is a continuation of Application Serial No. 238,294, filed November 16, 1962, the record, including the Isharani publication, does not support an assertion that the "Noran Silicone Softener" referred to in Watanabe et al, originally filed in 1962, is a silicone elastomer. Rather, according to Isharani, crosslinked silicone polymers were first applied in textile finishing in 1972 and second generation silicone elastomers were introduced by Ciba-Geigy in 1979-1980. It is therefore submitted that Watanabe et al do not disclose use of a silicone elastomer as employed in the presently claimed methods.

Anticipation under 35 U.S.C. §102 requires the disclosure in a single prior art reference of each element of the claims under consideration, *Alco Standard Corp. v. TVA*, 1 U.S.P.Q.2d 1337, 1341 (Fed Cir. 1986). In view of the deficiencies in the teachings of Watanabe et al, Watanabe et al do not disclose each limitation of claim 21. Thus, Watanabe et al do not anticipate claim 21, or the claims dependent thereon, under 35 U.S.C. §102, whereby the rejection has been overcome. Reconsideration is respectfully requested.

Claims 21-23 and 33 were rejected under 35 U.S.C. §102(b) as being anticipated by the Lauchenauer U.S. Patent No. 3,807,952. The Examiner asserted that Lauchenauer teaches fabrics treated with an aldehyde and a fabric softener.

However, Applicant submits that the methods for treating a textile defined by claims 21, 23 and 33 are not anticipated by and are patentably distinguishable from Lauchenauer. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

The methods of claim 21 are discussed above. In contrast, Lauchenauer discloses methods of crosslinking cellulosic fibers wherein a nitrogenous compound having a specified formula is employed. The examples of Lauchenauer employ a softener. However, Applicant finds no teaching or suggestion by Lauchenauer relating to a silicone elastomer or relating to a method for treating a textile comprising providing the textile with a silicone elastomer, particularly wherein the treated textile is unresinated, as presently claimed.

As noted above, anticipation under 35 U.S.C. §102 requires the disclosure in a single prior art reference of each element of the claims under consideration, *Alco Standard Corp. v. TVA, supra*. In view of the failure of Lauchenauer to teach a method for treating a textile comprising providing the textile with a silicone elastomer, particularly wherein the treated textile is unresinated, as presently claimed, Lauchenauer does not disclose each limitation of claim 21. Thus, Lauchenauer does not anticipate claim 21, or claims 23 and 33 dependent thereon, under 35 U.S.C. §102, whereby the rejection has been overcome. Reconsideration is respectfully requested.

Claims 21-23 and 31-33 were rejected under 35 U.S.C. §102(b) as being anticipated by the Hendrix et al U.S. Patent No. 4,396,390. The Examiner asserted that Hendrix et al teach fabrics treated with an aldehyde and a fabric softener.

However, Applicant submits that the methods for treating a textile defined by claims 21, 23 and 31-33 are not anticipated by and are patentably distinguishable from Hendrix et al. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

The processes of claim 21 are discussed above. In contrast, Hendrix et al disclose a process for producing chintz fabric. Fabric is treated with a finishing composition of a silicone polymer, a catalyst and a cross-linking agent, various examples of which are disclosed and include formaldehyde and aminoplast resins. The aminoplast resins are disclosed as especially suitable (column 5, lines 56-59) and are employed in all of the

examples of Hendrix et al. Hendrix et al teach that the finishing composition is applied to the fabric, the fabric is dried without curing, and the dried fabric is calendered with a heated calendar roll to form a smooth glossy surface.

In contrast, as noted above, claim 21 is directed to methods for treating a textile wherein the treated textile is unresinated. Applicant finds no specific teaching or suggestion by Hendrix et al of processes for treating textiles wherein the textile is unresinated. The mere listing of formaldehyde as one of numerous cross-linking agents does not, with the remainder of the Hendrix et al teachings employing aminoplast resins, provide a teaching of each element of the methods of claim 21. Thus, Hendrix et al do not anticipate claim 21, or claims 23 and 31-33 dependent thereon, under 35 U.S.C. §102, whereby the rejection has been overcome. Reconsideration is respectfully requested.

Claims 21, 23 and 33 were rejected under 35 U.S.C. §102(b) as being anticipated by the Martin et al U.S. Patent No. 4,520,176. The Examiner asserted that Martin et al teach fabrics treated with an aminoplast resin, an aldehyde such as formaldehyde, a softening agent and an acid catalyst.

However, Applicant submits that the methods for treating a textile defined by claims 21, 23 and 33 are not anticipated by and are patentably distinguishable from Martin et al. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

The methods of claim 21 are discussed above. As discussed in the specification, for example beginning at page 3, line 7, it has been known in the art to treat cellulose fabrics with resins or precondensates of the urea-formaldehyde or substituted urea-formaldehyde type to produce a resin-treated durable press product. However, while such resins can improve durable press properties, such resins can adversely effect other desirable properties of such materials. Accordingly, in the methods of claim 21, the treated textile is unresinated, thereby avoiding the disadvantages of resin-treated materials. In contrast, the Martin et al

compositions and process are particularly directed to aminoplast resins (see, for example, the abstract, line 3 and column 2, line 16 - column 4, line 2). Suitable aminoplast resins preferred by Martin et al include the ethylene ureas which are employed throughout the Martin et al examples, including Example 6 noted by the Examiner.

In view of the failure of Martin et al to teach methods wherein the treated fabric or textile is unresinated, Martin et al et al do not anticipate claim 21, or claims 23 and 33 dependent thereon, under 35 U.S.C. §102, whereby the rejection has been overcome. Reconsideration is respectfully requested.

Finally, claims 21-33 were rejected under 35 U.S.C. §103(a) as unpatentable over Hendrix et al. The Examiner asserted that Hendrix et al disclose fabrics treated with an aldehyde such as formaldehyde and softener. The Examiner asserted it would have been obvious to preshrink wool before treating or to treat a fabric which has been moistened.

However, Applicant submits that the methods defined by the present claims 21 and 23-33 are nonobvious over Hendrix et al. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

As noted above, claim 21 is directed to methods for treating a textile comprising fibers selected from the group consisting of cellulosic fibers, protein fibers and mixtures thereof. The methods comprise the steps of (a) contacting the textile with a liquid composition comprising formalin in an amount sufficient to provide from 0.56% to 7.4%, on weight of fabric, formaldehyde, and (b) heat curing the textile. The formalin comprises formaldehyde and water, the textile is provided with a silicone elastomer, and the treated textile is unresinated. Claim 24 is directed to a similar method wherein the textile is first moistened with a moistening solution comprising water.

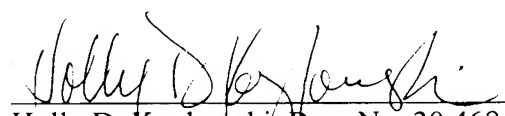
As also discussed above, Hendrix et al disclose methods and compositions employing aminoplast resins. Applicant finds no teaching or suggestion by Hendrix et al of processes

for treating textiles wherein the textile is unresinated. The mere listing of formaldehyde as one of numerous cross-linking agents does not, with the remainder of the Hendrix et al teachings employing aminoplast resins, enable one of ordinary skill in the art to arrive at the methods of claim 21 or claim 24.

In order to render a claimed invention obvious, the prior art must enable one skilled in the art to make and use the claimed invention, *Motorola, Inc. v. Interdigital Tech. Corp.*, 43 U.S.P.Q.2d 1481, 1489 (Fed. Cir. 1997). In view of the failure of Hendrix et al to teach or suggest a method for treating a textile which is unresinated and provided with a silicone elastomer, Hendrix et al do not enable one skilled in the art to practice the presently claimed methods. Thus, Hendrix et al do not render the presently claimed methods obvious, whereby the rejection under 35 U.S.C. §103 has been overcome. Reconsideration is respectfully requested.

It is believed the above represents a complete response to the rejections set forth in the Official Action and places the present application in condition for allowance. Reconsideration and an early allowance are respectfully requested.

Respectfully submitted,


Holly D. Kozlowski, Reg. No. 30,468
DINSMORE & SHOHL LLP
1900 Chemed Center
255 E. Fifth Street
Cincinnati, Ohio 45202
(513) 977-8568

VERSION WITH MARKINGS SHOWING CHANGES MADE

Claims 21 and 24 are amended as follows:

21. (Amended) A method of treating a textile comprising fibers selected from the group consisting of cellulosic fibers, protein fibers and mixtures thereof, comprising the steps of:

- (a) contacting the textile with a liquid composition comprising formalin in an amount sufficient to provide from 0.56% to 7.4%, on weight of fabric, formaldehyde, and
- (b) heat curing the textile,

wherein the formalin comprises formaldehyde and water, [and] wherein the textile [it] is provided with a silicone elastomer, and wherein the treated textile is unresinated.

24. (Amended) A method of treating a textile comprising fibers selected from the group consisting of cellulosic fibers, protein fibers and mixtures thereof, comprising the steps of:

(a) [according to claim 21, wherein the method further comprises the step of] moistening the textile with a moistening solution comprising water [prior to the step of contacting the fabric with liquid composition] ,

(b) contacting the moistened textile with a liquid composition comprising formalin in an amount sufficient to provide from 0.56% to 7.4%, on weight of fabric, formaldehyde, and

(c) heat curing the textile,

wherein the formalin comprises formaldehyde and water, wherein the textile it provided with a silicone elastomer, and wherein the treated textile is unresinated.